

## GROUNDWORK CHANGING PLACES Richmond

Richmond Air Rangers

Monitoring, Modeling
& Job Training
California Air Resources Board

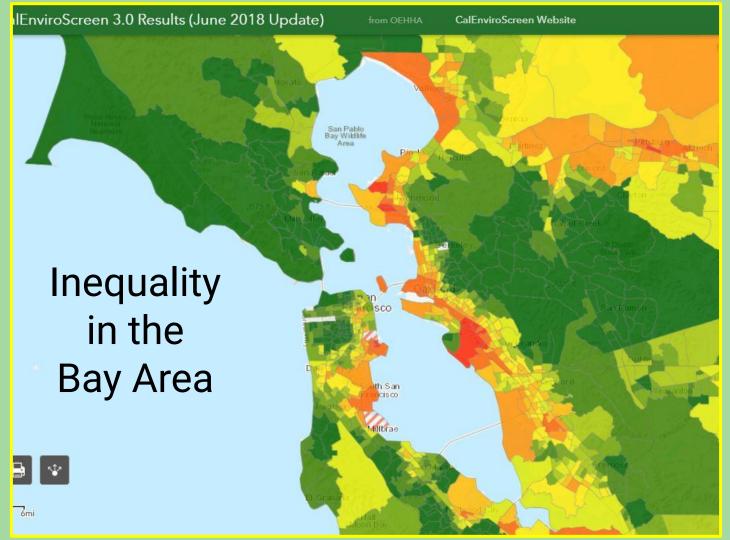
Community Air Grant Program









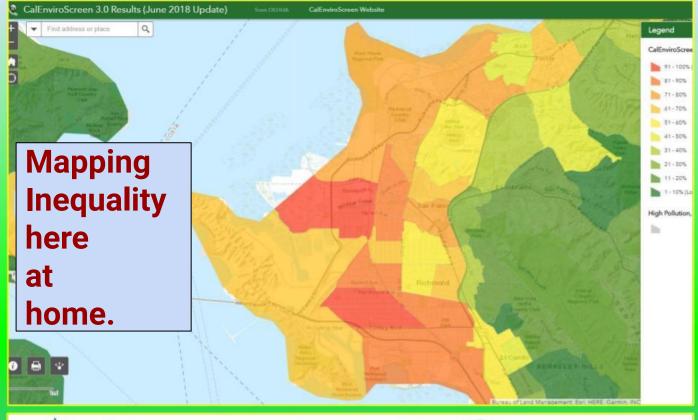














#### Groundwork

Richmond





Changing Places.











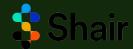


## Groundwork Richmond



Changing Places.
Changing Lives.







#### **Mobile Source Pollution**

Routine Pollution that remains un-monitored throughout much of California

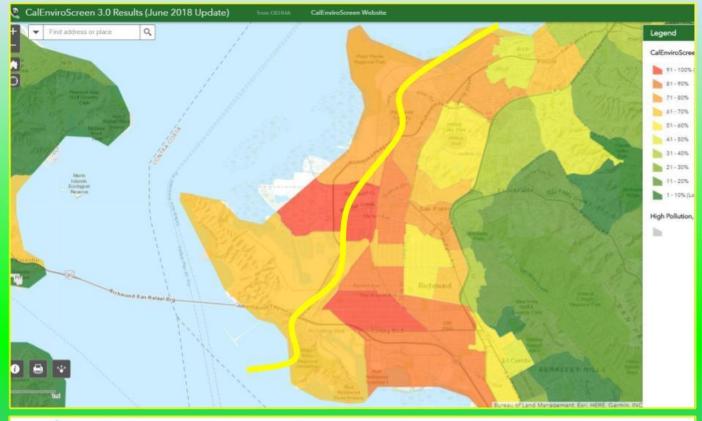














#### Groundwork

Richmond

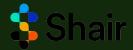




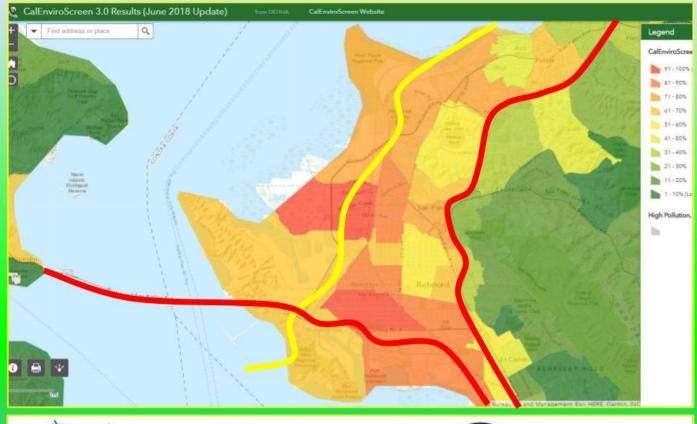
Changing Places.













#### Groundwork

Richmond





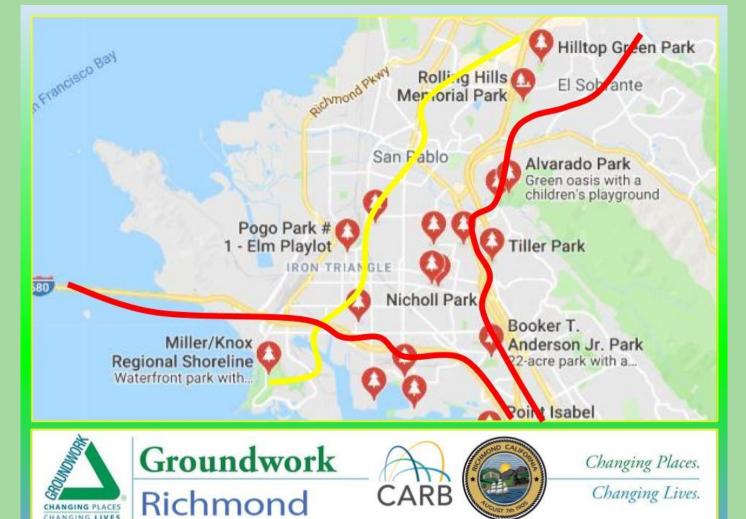
Changing Places.

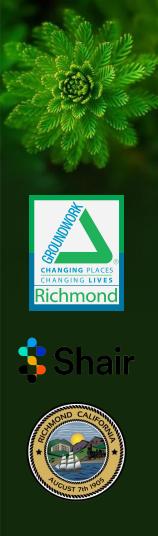












Stationary Sources the represent a unique challenge within our study area.





**EXISTING AIR QUALITY TOOLS**AIR QUALITY MONITORING STATIONS FOR RICHMOND GOOGLE EARTH, 2019, BAAQMD PM2.5 AIR MONITORING MAPVIEW







REGIONAL MODEL WITH A 1 KM RESOLUTION RICHMOND STEERING COMMITTEE, 2019, PM2.5 FILTER MAPVIEW











New Technology Means New Possibilities.

Our network was designed by the community to look at the places that matter to them.

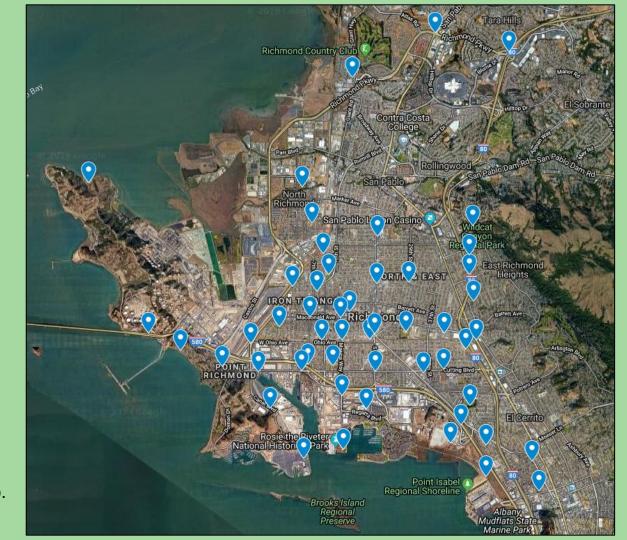
Residents placed the network where they live, work & play instead.

Monitoring the people who are impacted most.

We can go beyond litigation and property ownership.













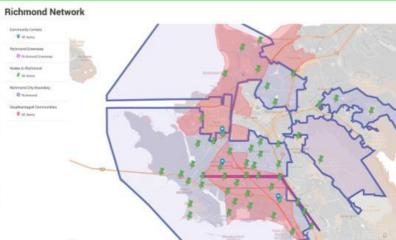




Built For Us, By Us.









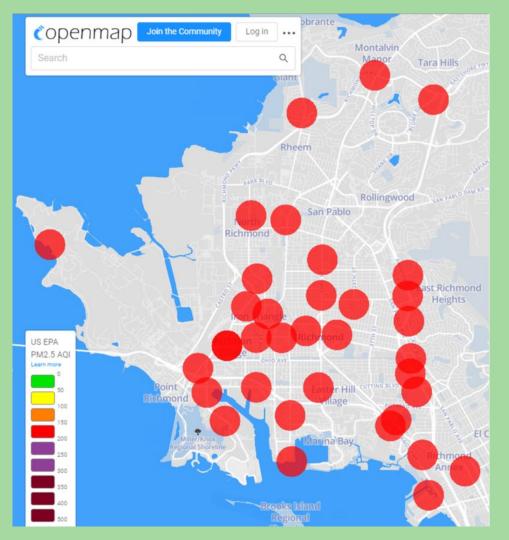
#### Groundwork

Richmond



Changing Places.





The Clarity Open Map has been hugely useful for identifying bad air days like this one During last Fall's wildfire episode.

This was the day the school district closed and sent our kids outside to walk home in the smoke.











Air Rangers Installing Sensors, Learning Technical Skills and following the Scientific Method.

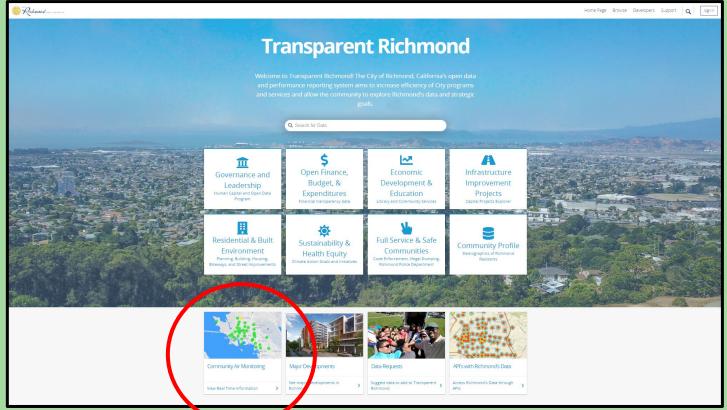








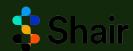
#### TRANSPARENT RICHMOND



City of Richmond, 2020,

https://www.transparentrichmond.org/

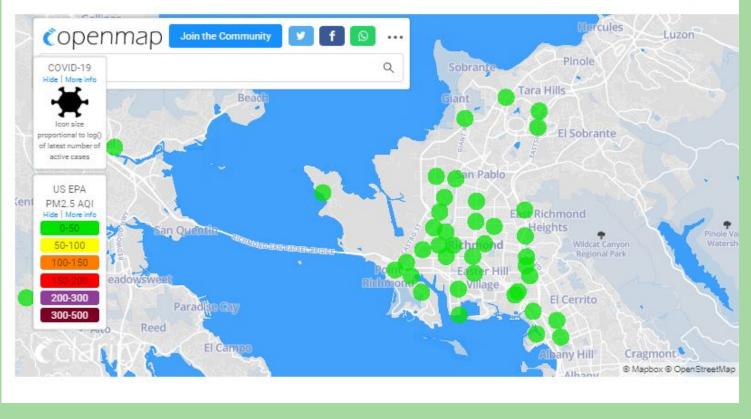
# CHANGING LIVES



Richmond



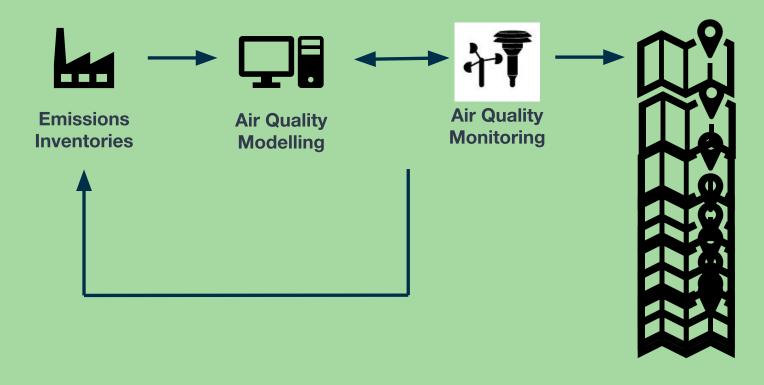
#### Richmond-San Pablo Community Air Monitoring



Discrete PM 2.5 Data Currently Available on Transparent Richmond



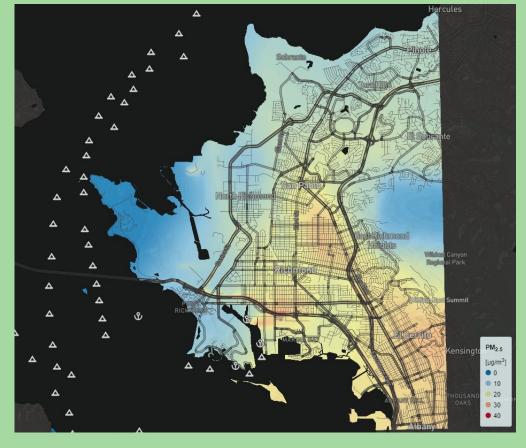
### Discrete points are challenging to understand Shair gives a full picture











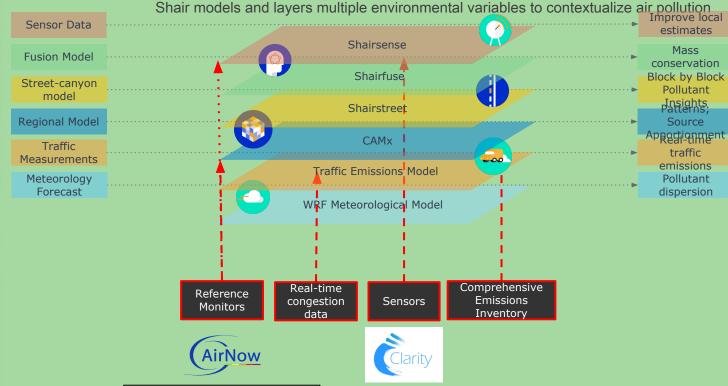
SHAIR INTERFACE slated to replace Clarity Map on Transparent Richmond (app.ramboll-shair.com)









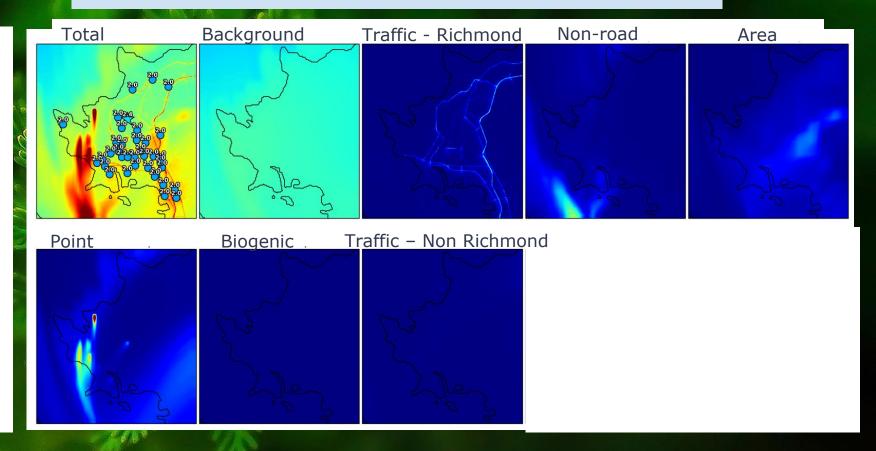


Coming Soon -BAAQMD San Pablo Monitoring RoofTOP



HOW SHAIR WORKS

#### **SHAIR SOURCE CONTRIBUTIONS**



PM2.5 Mass Concentration [ug m-3]

- 2



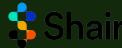




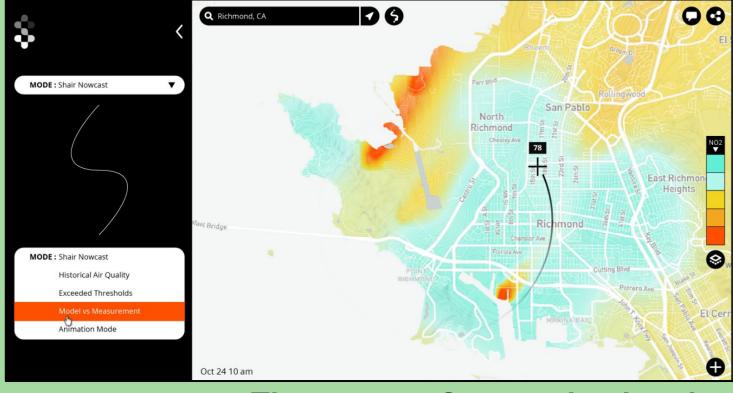


More granular spatial and temporal data than ever before





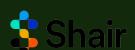




#### The center of strategic planning

- ~ Real-time, accessible information ~ Locate and identify hotspots ~
  - ~ Track trends and effectiveness of strategies over time ~
- ~ Share information and notify when levels reach a particular threshold ~







#### PHASE II

~Workforce Development transitions from sensor installation to filter sample collection~

~SHAIR Model directs sample collection identifying airborne compounds of concern~



The Air Rangers Van will Collect Gravimetrically Speciated Samples of airborne metals



Lab verified results helping us all to utilize hyper-local data for decision-making









